

9. (Amended) A network for transmitting data between network interface controllers in a communications system, said network comprising:

a first network interface controller;

a second network interface controller coupled to said first network interface controller, wherein one of said first and second network interface controller comprises a master timing network interface controller;

a plurality of modules coupled to either of said first and second network interface controllers, wherein said modules are capable of requesting transmission of data; and

a means for prioritizing an order of transmission of said data and for allocating bandwidth for each transmission requested based on such prioritization.

16. (Amended) A network for transmitting data between modules in a communications system, wherein said data comprises periodic data and aperiodic data, said network comprising;

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a master network interface controller, wherein said master interface controller is capable of allocating a first interval for transmission of periodic data over said databus and of prioritizing transmission of said aperiodic data requested by said modules;

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a first backplane coupled to said master network interface controller, at least one first module coupled to said first backplane, wherein data is transmittable from one of said first modules along said first backplane to other first modules and said master network interface controller;

a network databus coupled to said master network interface controller;

at least one network interface controller coupled to said network databus;

a second backplane coupled to said network interface controller;

at least one second module coupled to said second backplane, wherein data is transmittable from one of said second modules along said second backplane to other second modules and said network interface controller; and

wherein said first and second modules are capable of requesting transmission of said aperiodic data over said network databus, wherein said requests of transmission are prioritizable by said master network interface controller.